

7-1-7 Measles Tabletop Activity

Participant's guide

Overview

This 90-minute small group activity simulates the use of the 7-1-7 target and performance improvement approach for a disease outbreak event in a fictitious country. Participants will use the 7-1-7 Assessment Tool and engage in discussions to:

1. Identify and record the 7-1-7 milestone dates
2. Calculate 7-1-7 performance based on the detection, notification and response intervals
3. Identify bottlenecks/enablers and translate them to actions for performance improvement

Background

Epistan is a small nation with six districts. A comprehensive disease surveillance and response framework is conducted at health facilities, organized by districts, and coordinated by the national Ministry of Health (MoH) and the Public Health Emergency Operations Center (PHEOC). You are an emergency manager working in the PHEOC.

Scenario

Today is **December 12. The PHEOC was activated today.** A meeting has been called in 20 minutes to discuss a new confirmed case of **measles**. Measles is not endemic in the country. The incident manager has requested that you summarize the outbreak timeline and propose priority actions using the 7-1-7 approach.

A 22-year-old female, “Ms. A”, presented at a district hospital on **December 3** with a fever, cough, coryza (inflammation of the mucous membrane in the nose), and conjunctivitis (often known as “pink eye”. It is an inflammation of the outermost layer of the white part of the eye and inner surface of the eyelid). Her symptoms started 3 days earlier, on **November 30**.

After testing negative for influenza, COVID-19, and Respiratory Syncytial Virus (RSV), she was managed for a general respiratory virus and sent home despite observation of Koplik spots, which are a diagnostic feature of measles. On **December 6**, she noticed a rash near her head. On **December 8**, she returned to the hospital as the rash spread across her body. The clinical team suspected measles. They completed a case investigation form and collected a specimen to send to the national reference laboratory on **December 8**.

On **December 9**, the attending physician, who had recently undergone refresher training on escalation and reporting protocols, called the district surveillance officer about the suspected measles case. On **December 10**, the district rapid response team initiated contact tracing of Ms. A’s contacts and started active surveillance of health workers at the district hospital. The specimen arrived at the national laboratory on **December 10**. On **December 12**, the laboratory confirmed the specimen was positive for measles and directly notified the national PHEOC.

On **December 12**, the district rapid response team (RRT) completed its initial epidemiological investigation, identified an additional suspected case, and provided a linelist and contact list to the PHEOC. Based on this information, the national PHEOC performed a risk assessment on the same day and assessed this event to be very high risk. The incident manager immediately shared the assessment recommendations with the Minister of Health, which included a request to deploy a national rapid response team.

The national RRT was deployed on **December 14**, slightly delayed due to a lack of funds for the procurement of fuel.

Starting **December 15**, the national RRT conducted infection prevention and control (IPC) assessments at the district hospital and measles case management training.

The combined team of the national and district RRT began risk communication and community engagement activities on **December 18**, as there was confusion between the district and national authorities because of delays in translating materials into several local languages spoken by the outbreak-affected communities. Also on **December 18**, the Minister gave a press briefing, with a subsequent release of a national advisory on the confirmed outbreak using print and electronic media. Misperceptions and rumors about the outbreak began to circulate in the community, including that this was a case brought from foreigners who were not vaccinated.

The situation report from the national team on **December 18** highlighted that a significant number of healthcare workers, inpatients, and community members were high-risk contacts. The next day, **December 19**, the incident manager sent the Minister of Health a vaccine requisition order for the WHO, requesting support for a rapid vaccination campaign in affected communities.